

REMARKS

Claims 1-18 are currently pending in the Application. In an office action dated February 11, 2004 ("Office Action"), the Examiner rejected claims 1-2, 4-5, and 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Dobbeck, U.S. Patent No. 6,535,995 ("Dobbeck") in view of Bruce et al., U.S. Patent No. 5,000,006 ("Bruce"), rejected claims 3, 13, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Dobbeck in view of Bruce and further in view of Jeddeloh, U.S. Patent No. 5,933,852 ("Jeddeloh"), rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Dobbeck in view of Bruce and further in view of Venkatesh et al., U.S. Patent No. 6,397,292 ("Venkatesh"), rejected claims 7-8 and 15 as being unpatentable over Dobbeck in view of Bruce and further in view of Smith, U.S. Patent No. 6,269,432 ("Smith"), and conditionally allowed claims 14, 16, and 18 providing that three independent claims are rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant's representative respectfully traverses these rejections.

Applicant's representative would like to again thank the Examiner for the conditional allowance of claims 14, 16, and 18. Applicant's representative defers rewriting claims 14, 16, and 18 at this time, until the Examiner considers the following traversal of the claim rejections, but may elect to do so in a subsequent response.

Applicant's representative usually refrains from citing case law in responses to office actions, but feels that a relatively recent Federal Circuit nicely summarizes Applicant's representative's reasons for disagreeing with the Examiner's rejection of claims 1-13, 15, and 17. In In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ 1614, 1617 (Fed. Cir. 1999), the Court summarizes relevant case law on hindsight recognition:

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine]" as an "essential evidentiary component of an obviousness holding"); In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("the Board must identify specifically . . . the reasons one of ordinary skill in the art would have been motivated to select the references and combine them"); In re Fritch, 972 F.2d 1260,

1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (**examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"**); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297, 227 USPQ 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination"). See also Graham, 383 U.S. at 18, 148 USPQ at 467 ("strict observance" of factual predicates to obviousness conclusion required). **Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight.** See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."). In this case, the Board fell into the hindsight trap.

We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para- Ordinance Mfg. v. SGS Imports Intern., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), although "the suggestion more often comes from the teachings of the pertinent references," Rouffet, 149 F.3d at 1355, 47 USPQ2d at 1456. **The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular.** See, e.g., C.R. Bard, 157 F.3d at 1352, 48 USPQ2d at 1232. **Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence."** E.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact.");

As the Examiner correctly states in the Office Action, "Dobbek does not teach that this data block sparing technique that applied over the direct access storage device can also be applied to the solid-state storage device." But, then, the Examiner goes on to state that:

Bruce, on the other hand, teaches that a flash memory system provides solid-state mass storage as a replacement to a DASD (a hard disk) (e.g. see abstract). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the current invention was made to use the solid-state storage device in the place of the DASD as taught by Bruce in Dobbek's storage device because (1) the solid-state storage device has a very high storage density, i.e. the physical size of the solid-state storage device is less than the DASD to store the same amount of data and (2) the solid-state storage device is a lot faster and have a longer life compare to the DASD.

The Examiner's suggestion for combining Dobbek and Bruce is, in Applicant's representative's respectfully offered opinion, flawed, and represents the very hindsight rejection against which the above-cited opinion warns so effectively against. The Examiner's particular reasons do not suggest the combination that the Examiner is attempting to justify. Applicant's representative concedes that Bruce does, in fact, suggest that a "flash-memory system provides solid-state mass storage as a replacement to a hard disk" in the Abstract. Although Applicant's representative believes that flash memory is not even close to a practical substitution for most hard disks, as evidenced by the continued use of hard disks in portable consumer electronic devices, in which a solid-state memory would seem to have huge advantages, such as the iPod music player, the suggestion is clearly made in Bruce. However, the suggestion is only that a hard disk be replaced by a flash-memory device. There is no suggestion that the flash memory be altered to include a bad-block replacement mechanism like the hard disk, rather than the primitive remapping systems referred to by Bruce as prior art, and disclosed by Bruce. In fact, the suggestion made by Bruce is almost exactly contrary to that represented by the Examiner. Bruce is disclosing a remapping mechanism for a flash-memory device that he would suggest as a reasonable replacement for a hard disk. If his suggestion is that, in this application, his disclosed remapping mechanism ought to be replaced by a hard-disk-like remapping mechanism, then he would be suggesting that his claimed invention is insufficient for the suggested application. This, obviously, is not at all what Bruce suggests. Bruce suggests replacing a hard-disk drive with a hard-disk-drive remapping mechanism by a flash-memory device with a relative primitive remapping mechanism. The Examiner's further step represents not a suggestion culled from the prior art, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved, but instead a leap ahead to Applicant's invention based on the blueprint for the invention provided in Applicant's patent application. Bruce suggests that his remapping mechanism is quite adequate, and improved over prior art mechanisms, and quite suitable for a hard-disk-substitution application.

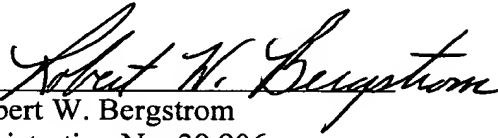
The Examiner's specific reasons: "the solid-state storage device has a very high storage density, i.e. the physical size of the solid-state storage device is less than the

DASD to store the same amount of data and (2) the solid-state storage device is a lot faster and have a longer life compare to the DASD" are both irrelevant and, to some degree, actually teach away from Applicant's claimed invention. Applicant's representative is not certain that a solid-state memory device is physically smaller than a hard disk of equivalent capacity, and, in fact, strongly believes that this is not the case. But, regardless of the truth of the statement, the physical size of the device has nothing at all to do with whether or not the device needs a bad-block replacement mechanism tailored for the device. *The fact that a solid-state storage device is a lot faster and has a longer life than a DASD would argue that a bad block replacement mechanism is not needed, or at least, far less important than in a hard-disk drive.* Thus, Applicant's representative believes that the Examiner's stated suggestion for the combination is, in fact, an argument against the combination.

In summary, Applicant's representative cannot find a suggestion in the prior art, the cited references, or in any statement or justification offered by the Examiner, for using Bruce's flash-memory in place of a hard-disk, only after altering Bruce's device to use a hard-disk-like bad-block replacement mechanism, rather than Bruce's claimed block remapping scheme.

All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a Notice of Allowance are earnestly solicited.

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